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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,597	06/01/2001	James M. Reuter	P01-3666	2619

22879 7590 07/29/2003

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EXAMINER

ROBERTSON, DAVID L

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,597

Applicant(s)

REUTER ET AL.

Examiner

David L. Robertson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 14 July 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

This Office action is in response to the amendment filed July 14, 2003.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The corrected or substitute drawings were received on July 14, 2003.

These drawings are approved.

However, in order to avoid abandonment, the remaining drawing informalities noted in Paper No. 5, mailed on April 17, 2003, must now be corrected. More specifically, correction (or explanation) is required with respect to the objection relating to element 280. Correction to the drawings can only be effected in the manner set forth in the above noted paper.

The disclosure is objected to because of the informalities noted in the previous action, but which have neither been corrected nor explained. Appropriate correction or explanation is required.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter

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which applicant regards as the invention. Claim 1 recites a method of "copying the contents", however, nowhere within claims 1-7 does any copying of the contents of the first virtual disk ever take place, thus the claim is incomplete, lacking essential elements, see MPEP § 2172.01. Note that the specification is clear as to what is meant by "copying the contents" of a disk, see page 1, lines 12-19:

The ability to duplicate and store the contents of a storage device is important in a storage system. Data may be stored in parallel to safeguard against the failure of a single storage device. Upon a failure of the first storage device, the system may then retrieve an archived copy of the data contained at a second storage device. The ability to duplicate and store the contents of the storage device also allows the creation of a fixed record of contents at the time of duplication. This feature allows users to recover a prior version of inadvertently edited or erased data.

Thus, the language "copying the contents of a first virtual disk" appears to mean significantly more than merely "copying the entries of the first table" which clearly does not encompass copying the "contents."

Claim 12 has been amended to recite "creating a new segment of storage space" however there is no discussion in the specification anywhere describing what is meant by that language. Claims 8 and 10 include similar language. However, there is no corresponding term or phrase in the remainder of the specification so that the meaning of the noted step may be ascertainable by reference to the description as required by 37 C.F.R. § 1.75(d)(1), thus this language fails to particularly point out and distinctly claim the subject matter of the invention.

Claim 17 recites the step of "completing operations at the table", however there is no corresponding term or phrase in the remainder of the specification so that the meaning of the noted step may be ascertainable by reference to the description as required. Further, in view of applicant's reference to page 18, lines 1-15, it is not clear which operation described therein corresponds to the claim language. The claim preamble refers to maintaining "a table." This table is clearly the very table stored at the agent (see line 3, "at an agent storing *the table*"). Entries within the table are then activated (i.e., changed). The only "operations" recited in the claim are "receiving a command..." and "activating states..." Once these operations are complete (i.e., a command to change the table has been received, and that command has been executed), the table has been updated (see line 6, "updating the table in response to the command"). The step of "completing operations at the table" appears at first blush to be completely redundant. However, since it is separately recited, it is not clear which of the recited operations applicant intends to reference.

Additionally, it is not clear what applicants mean by "obtaining mapping information" in claim 19 in the method of "maintaining a table for mapping". As noted above, "the table" in claim 17 is clearly the one stored at the agent. The plain meaning of the language "obtaining mapping information from..." suggests that this particular table is the *source* of the mapping information. Applicant's remarks point to page 16, lines 19-29. However, that section states that "the

set_entry command (which is received by the agent) contains the updated mapping table entry..." (see page 16, lines 26-27, parenthetical material added).

Due to the ambiguities and confusion in claims 1-19, no art has been applied thereto, see *In re Steele*, 49 CCPA 1295, 305 F.2d 859, 134 USPQ 292 (1962) and *In re Wilson*, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). The examiner will not speculate as to the intended meaning.

Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims also contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Claims 1-7 have been discussed above as missing an essential step. Claims 8, 10 and 12 recite the step of "creating a new segment." However, nowhere in the specification is any form of the word "create" ever associated with the creation of a new segment, thus said creation lack description. Further, the most closely related description appears to be the "allocation of a new segment..." In conjunction with this applicants have explicitly stated that "It should be appreciated that the particular mechanism and infrastructure to select and allocate free segments is beyond the scope of this disclosure." Note also that

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the constitution of the mapping agents has not been described, therefore claim 16 also has no support.

Applicant's arguments filed July 14, 2003 have been fully considered but they are not persuasive. All of applicant's arguments have been addressed in the rejections above. Further, no arguments have been presented with respect to claim 16.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

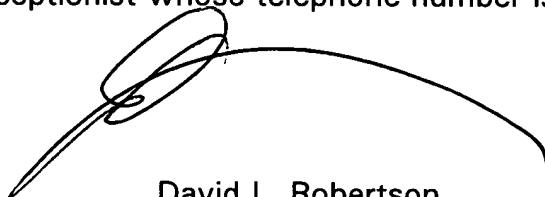
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Robertson whose telephone number is (703) 305-3825. The examiner can normally be reached on weekdays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim, can be reached on (703) 305-3821. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke extending to the right.

David L. Robertson
Primary Examiner
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